AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-14. (Cancelled)

15. (Withdrawn) A method for treating osteoarthritis comprising administering to an area in need of regeneration of articular cartilage an osteochondral graft having applied thereto a composition consisting essentially of an amount of at least one purified bone morphogenetic protein (BMP) effective for the regeneration of said articular cartilage.

16. (Withdrawn) A method for treating a full thickness defect of articular cartilage comprising administering to the site of said defect an osteochondral graft having applied thereto a composition consisting essentially of an amount of at least one purified bone morphogenetic protein (BMP) effective for the regeneration of articular cartilage.

17. (Withdrawn) A method for regeneration of articular cartilage comprising administering to an area in need of regeneration of said articular cartilage a composition consisting essentially of

(i) cultured chondrocytic cells and

(ii) an amount of at least one purified bone morphogenetic protein (BMP) effective for the regeneration of said articular cartilage.

18. (Withdrawn) The method of claim 17, wherein said cultured chondrocytic cells are chondrocytes.

19. (Withdrawn) The method of claim 17, wherein said cultured chondrocytic cells are stem cells.

20. (Previously presented) A method for regeneration of articular cartilage comprising administering to an area in need of regeneration of said articular cartilage an osteochondral graft having applied thereto a composition consisting essentially of an amount of a heterodimer effective for the regeneration of articular cartilage, wherein the heterodimer comprises one purified bone morphogenetic protein (BMP) and one protein which induces the formation of tendon or ligament tissue.

21. (Previously presented) The method of claim 20, wherein said BMP is BMP-2.

22. (Previously presented) The method of claim 20, wherein said protein which induces the formation of tendon or ligament tissue is selected from the group consisting of BMP-12, BMP-13, members of the BMP-12 subfamily, and MP52.

23. (Previously presented) A method for regeneration of articular cartilage comprising administering to an area in need of regeneration of said articular cartilage an osteochondral graft having applied thereto a composition consisting essentially of

(i) an amount of at least one purified bone morphogenetic protein (BMP) effective for the regeneration of said articular cartilage and

(ii) one or more pharmaceutical carriers.

24. (Previously presented) The method of claim 23, wherein said pharmaceutical carrier is hyaluronic acid.

25. (Previously presented) The method of claim 23, wherein said the pharmaceutical carrier is a mineral.

26. (Previously presented) The method of claim 25, wherein said mineral is calcium phosphate.

27. (Previously presented) The method of claim 23, wherein said pharmaceutical carrier is a ceramic.

28. (Previously presented) The method of claim 27, wherein said ceramic is hydroxyapatite.

29. (Currently amended) A method for regeneration of articular cartilage comprising administering to an area in need of regeneration of said articular cartilage an osteochondral graft ~~having applied thereto~~ and a composition consisting essentially of an amount of at least one purified bone morphogenetic protein (BMP) effective for the regeneration of said articular cartilage, wherein said composition is ~~administered~~ applied directly to the osteochondral graft and/or administered directly to the site in need of tissue repair in conjunction with the graft.

30. (Currently amended) The method of claim 29, wherein said composition is applied to the graft or the site in need of tissue repair ~~administered~~ using a syringe for injection.

31. (Currently amended) A method for regeneration of articular cartilage comprising administering to an area in need of regeneration of said articular cartilage an osteochondral graft having applied thereto a composition consisting essentially of an amount of at least one purified bone morphogenetic protein (BMP) effective for the regeneration of said articular cartilage, wherein the area in need of regeneration of said articular cartilage is selected from the group consisting of the hip and the knee.

32. (Previously presented) The method of claim 31, wherein the area in need of regeneration of said articular cartilage is the hip.

33. (Previously presented) The method of claim 31, wherein the area in need of regeneration of said articular cartilage is the knee.

34. (Previously presented) The method of claim 33, wherein the area of the knee in need of regeneration of articular cartilage is the trochlear groove.

35. (Previously presented) The method of claim 33, wherein the area of the knee in need of regeneration of articular cartilage is the femoral condyle.

36. (Previously presented) The method of claim 35, wherein the area of the knee in need of regeneration of articular cartilage is the medial femoral condyle.

37. (Previously presented) The method of claim 35, wherein the area of the knee in need of regeneration of articular cartilage is the lateral femoral condyle.